must fulfill specific criteria. To date, there is no conclusion regarding the value of pituitary ablation.

Despite advances in these techniques, which may permit control of the nonproliferative and proliferative stages of diabetic retinopathy, proper management rests with recognition at the earliest stages of the disease. To improve their visual prognosis, diabetics must have ophthalmic evaluations regularly.

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Rhabdomyosarcoma of the Orbit

ELECTRON MICROSCOPY has become am important method of studying and identifying the different types of orbital tumor.

Rhabdomyosarcoma is the most common malignant tumor of the orbit in children. It may be present at birth but the average age of onset is around 8 years of age. The clinical signs have a rapid evolution with proptosis, lid and conjunctival edema, limitation of motion, papilledema and some pain. Nasal bleeding may occur if the ethmoid area is invaded. The diagnosis is made after biopsy. Histologically the tumors exhibit a varying pattern. It is now believed that, in contrast to those of adults, these tumors do not arise from pre-existing muscles, but originate from undifferentiated orbital mesenchymal tissue. Most rhabdomyosarcomas of the orbit are pleomorphic, exhibiting spindle cells with abundant cytoplasm in some areas, alveolar patterns in others, and differentiation into striated muscle cells in still other portions. Cross striations are found in only 50 to 60 percent of these tumors, and they may be identified in the cells of metastatic lesions in cases where the primary tumor showed no striations. With the electron miscroscope the muscular nature of many of the cells becomes apparent. Some cells show sarcomeres with well developed Z bands, others that are rudimentary. Many cells are encountered in which only bundles of thick and thin actimyosin fibrils are identified.

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Kroll AJ: Fine structural classification of orbital rhabdomyosarcoma. Invest Ophthalmol 6:531-543, Oct 1967

Prophylaxis in Cataract Surgery

THE PROLONGED TOPICAL or systemic use of various combinations of antibiotics preoperatively to prevent infection in cataract operations has been discarded and the most recent work by Boyd, Welsh and others indicates that the subconjunctival injection of garamycin (Gentamycin®) 20 mg in solution, upon surgical entry of the operating field, is the best method. This particular antibiotic will penetrate the aqueous humor within five minutes and it is the opinion of the investigators that it is fully five minutes, with the usual preliminaries, before the anterior chamber is actually open.

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Desferrioxamine B in Treatment of Ocular Foreign Bodies

DEFEROXAMINE (DESFERRIOXAMINE B) has been found useful in the treatment of ocular iron-containing foreign bodies which otherwise may produce siderosis bulbi and loss of vision. It has been used for either corneal or intraocular foreign bodies. Skilled surgical extraction is the treatment of choice but if this is unsuccessful deferoxamine therapy should be considered. Five

or ten percent deferoxamine ointment may be applied topically four times daily for a corneal foreign body or rust ring. Also, deferoxamine may be given by subconjunctival injections. For a retained introcular foreign body, 500 mg deferoxamine is given intramuscularly twice daily. The length of treatment may vary widely; sometimes several weeks is needed.

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Ultrasonic Applications in Ocular Trauma

IN TRAUMATIZED EYES, it is difficult to see the anterior segment because of corneal clouding and hyphema. The posterior segment view may be obscured by cataract formation and vitreous hemorrhage. In these circumstances ultrasonography is a valuable mode of investigation of the internal structures of the eye.

The eye is an excellent model for ultrasonic analysis because the reflected echoes from the anterior intraocular structures are separated from the reflections of ultrasound from the posterior wall of the eye by the acoustically empty space of the vitreous.

Instrumentation for "A" mode ultrasonography is becoming more available in local community hospitals. The same basis instrumentation for echoencephalography is used for ophthalmology with a special probe (transducer).

Information can be obtained regarding the presence or absence of suspected intraocular foreign bodies. It is also possible to determine ultrasonographically the magnetic attractiveness of these, which lets the surgeon know before operation whether he is dealing with a magnetic or nonmagnetic foreign body. A change in the echo pattern of the foreign body, if magnetic, is observed during the period the magnet is applied to the globe.

Pathologic conditions of the vitreous such as vitreous hemorrhage and the potential presence of retinal detachment can be determined. There are limitations regarding the extent and reliability of the information gathered ultrasonographically, but it is an innocuous procedure which can provide valuable clinical information.

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